

## **REMARKS**

### **STATUS OF THE CLAIMS**

Claims 39-41 were pending in this application. Claims 39-41 were rejected. New claims 46-78 have been added. Following entry of the amendments claims 39-41 and 46-78 will be pending and at issue.

### **AMENDMENTS TO THE SPECIFICATION**

In the Office Action of June 28, 2004, the Examiner objected to the disclosure because of an informality in the Cross Reference to Related Applications section of the specification.

Applicants thank the Examiner for noticing this typographical error and have corrected it as suggested by the Examiner. Additionally, Applicants corrected a second typographical error in this paragraph by replacing the cited serial number "9/963,866" with "09,963,866."

### **AMENDMENTS TO THE DRAWINGS**

In the Office Action of June the 28, 2004, the Examiner stated that Figure 1 should be designated by a legend. A corrected drawing sheet labeled "Replacement Sheet" is included with this Response, in accordance with the Examiner's suggestion.

### **AMENDMENTS TO THE CLAIMS**

Applicants have amended claim 39 to better clarify the subject matter claimed invention. Claim 39 was not amended for purposes of patentability or to overcome any of the Examiner's rejections. Support for these amendments and for the new claims can be found throughout the specification as filed.

### **REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claims 39-41 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully disagree. However, in view of the amendments made to the claims for reasons unrelated to the Examiner's grounds for rejection, this rejection is now rendered moot. Applicants submit that the claims as amended are in compliance with 35 U.S.C. 112, first paragraph. Applicants request withdrawal of this rejection with regard to the amended claims.

### **OBJECTIONS UNDER 35 U.S.C. § 132**

The Examiner objected to the Amendment filed by Applicants on October 27, 2003 under 35 U.S.C. 132 as allegedly introducing new matter into the disclosure. The Examiner stated that the “limitation to the particle and crater being commensurate in size was added to the method of detection of particle numbers of claim 39” and stated that “this constitutes new matter.”

Applicants respectfully disagree. However, in view of the amendments made to the claims for reasons unrelated to the Examiner’s grounds for rejection, this rejection is now rendered moot. Applicants request withdrawal of this rejection with regard to the amended claims.

### **REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

**Claims 39-41** are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Without agreeing with the Examiner’s rejection but to expedite prosecution of this application, Applicants have amended claims 39-41. Applicants submit that the claims as amended are in compliance with 35 U.S.C. 112, second paragraph. Applicants request withdrawal of this rejection as drawn to the amended claims.

### **REJECTIONS UNDER 35 U.S.C. § 103**

**Claims 39-41** are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Burdon. Applicants respectfully disagree with this rejection in reference to the claims as amended and in reference to the previous unamended version of claims 39-41. Though this rejection may be moot in view of the amendments to the claims, Applicants would still like to address the Examiner’s statements.

Three requirements must be met for a prima facie case of obviousness. First, the prior art references must teach all the limitations of the claims. Second, there must be a motivation to modify the references or combine the teachings to produce the claimed invention. Third, a reasonable expectation of success is required. The teachings or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

**The cited art does not teach all of the limitations of the claims.** As the Examiner admits, Burdon does not teach “the detecting and electromagnets used in proximity to the same cavity.” Examiner fails to cite another reference that teaches this or to otherwise explain how “the detecting and electromagnets used in proximity to the same cavity” is obvious.

The Examiner stated that “Burdon teaches a method of moving fluid through a microfluidic device including a cavity 204 surrounded by coil 202 for detecting inductance of magnetic particles entering the cavity.” Applicants respectfully disagree. Burdon addresses “the detection of the presence or absence of the fluid medium,” but not “the moving of fluid ... for detection of the magnetic particles.” Burdon states that as “the number of magnetic microspheres in cavity 204 also rises...the inductance of coil 252 can be used to sense the presence or absence of fluid flowing through channel 254” (col. 20, lines 26-27, lines 29-30). Nowhere does Burdon teach “detecting, at each activated location, the number of particles attracted to the location” of claim 39. In addition, nowhere does Burdon teach “detecting, at one or more of the activated locations, the number of particles attracted to the location, wherein the number of attracted particles is discrete and predetermined” of amended claim 39. Furthermore, Burdon fails to teach “selectively activating one or more of said force transducing elements” and Burdon fails to teach any generation of a field or any generation of a field to attract one or more particles to a specific location.

In addition, Burdon does not teach all of the elements of new claim 59. For example, Burdon fails to teach “providing a substantially uniform magnetic field” or “controllably localizing one or more particles to the specific locations by activating the selected force transducing elements to transduce a motive force to one or more particles proximal to the corresponding specific location.”

**The cited art does not provide a motivation to modify the references or combine the teachings to produce the claimed invention.** Nowhere is there a motivation to modify Burdon to produce the claimed invention. Burdon states that “(f)or inductive sensing, the magnetic microspheres are added to the fluid ... to give the fluid a high magnetic permeability. In this way, the presence or absence of fluid can be detected” (col. 20, lines 17-21). Thus, Burdon is

teaching away from detecting the number of particles attracted to a location. Burdon cannot in hindsight be modified to provide teachings that Burdon specifically teaches away from.

The Examiner has not met the required specificity to establish a motivation to combine the references. The Examiner must show “reasons that the skilled artisans, confronted with the same problem as the inventor, and with no knowledge of the claimed invention, would select the elements from the cited prior art reference for combination in the manner claimed.” *In re Rouffet*, 47 USPQ2d at 1458, 1453 (Fed. Cir. 1998).

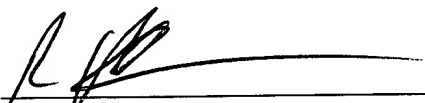
Therefore, the combination of references cited by the Examiner fails to make out a *prima facie* case of obviousness with regard to either the claims as amended (including the new claims) or with regard to the previous unamended version of claims 39-41.

## CONCLUSION

Withdrawal of the pending rejections and reconsideration of the claims as amended are respectfully requested, and a notice of allowance is earnestly solicited. If the Examiner has any questions concerning this Response, the Examiner is invited to telephone Applicant at (415) 317-2008.

Respectfully submitted,  
ROBERT P. OTILLAR

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## **AMENDMENTS TO THE DRAWINGS**

Please replace the drawing sheet showing Figure 1 with the corrected drawing sheet showing Figure 1, which is labeled "Replacement Sheet" and is included herein with this response.